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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,067	07/30/2003	William J. Thomas	100202150-1	9444

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EXAMINER	
CHEN, ALAN S	

ART UNIT	PAPER NUMBER
2182	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/630,067	THOMAS, WILLIAM J.	
	Examiner	Art Unit	
	Alan S. Chen	2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) *22-43* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *12/29/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-21, drawn to an invention, classified in class 710, subclass 8, peripheral configuration.

II. Claims 22-42, drawn to an invention, classified in class 705, subclass 59, licensing of software/hardware.

2. Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because Group I deals with upgrading peripheral configuration information without involvement of licensing of software, e.g., could be a firmware upgrade. The subcombination has separate utility such as enablement of particular functions of software/hardware via licensing information utilizing some more of licensing key.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. David Plettner (Reg. No. 36241) on 02/15/2006 a provisional election was made with traverse to prosecute the invention of

group I, claims 1-21. Affirmation of this election must be made by applicant in replying to this Office action. Claims 22-43 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 4-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Per claim 4, applicant claims replacing a replaceable electronic module with a replaceable electronic module. It is unclear whether this replaceable electronic module is another module or if it is *the same* electronic module that is, for example, pulled out tested, cleaned, upgrade a part on the module such as RAM, etc. To further expedite prosecution, Examiner will assume under the broadest reasonable interpretation of the claims, in light of the specification, that any of these scenarios can occur.

8. Claims 5-8 are rejected based on a rejected base claim.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claims 1-21 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat. Pub. No. 2004/0243798 to Goud et al. (Goud).

11. Per claim 1, Goud discloses a method of automatically maintaining configuration information of a replaceable electronic module (Fig. 1, element 150 and paragraphs 18-21, Goud discloses the blade management agent storing information of what BIOS each blade should be running. Note this is all "automatic" in the sense that a system administrator initially associates/defines which main BIOS belongs to each blade, but afterwards the blade management agent automatically runs the appropriate BIOS each time the system is booted), comprising: receiving an indication that the replaceable electronic module has been installed (Fig. 2, steps 205-220, Paragraphs 22-24, each blade has its own pre-boot BIOS which when the blade is initially installed or every time the system is powered-up, the pre-boot BIOS causes the signal/indication to be sent to the blade management agent, "...an attempt may be made to communicate with a blade management agent. This communication may facilitate the accessing of the main BIOS portion..."); receiving from the replaceable electronic module first configuration information related to capabilities of the replaceable electronic module to utilize permitted portions of its hardware (first configuration information is the both the preboot BIOS stored on the blade, Fig. 1, element 110, and main BIOS that is stored off the blade, Fig. 2, element 160; Paragraph 17 details what this main BIOS purpose is, i.e., "...provide the capability to perform the operations...not provided by the boot block BIOS 110. Such operations may include, but are not limited to...POST...complex

hardware initialization". Goud expressly states in paragraph 17, the preboot BIOS and boot block BIOS and main BIOS provide functionality greater than or radically different that what was originally intended, e.g., utilizing/permitting parts of the hardware not originally in the boot BIOS); and storing at least some of the received first configuration information in a first persistent memory (Fig. 1, element 160; Paragraph 14, BIOS is stored in firmware or other non-volatile memory structure) that is not on the replaceable electronic module (Fig. 1, element 165, main BIOS is not on the blades, e.g., elements 101 or 190; Paragraph 19 states "...retrieve main BIOS portions 165 from a number of locations...such as, a remote secure server, a removable disk, a non-removable disk, or a network interface...) and that is thereafter accessible by a replaceable electronic module manager (Fig. 1, element 150, Blade management agent) regardless of whether the replaceable electronic module remains installed or is subsequently uninstalled (main BIOS, element 165, is a separate system than blades, elements 101 and 190, regardless of whether the blade is installed or not, main BIOS information will remain accessible to any other blade requestor).

12. Per claims 2 and 3, Goud discloses claim 1, further comprising: storing the first configuration information in a second persistent memory on the replaceable electronic module (Fig. 1, element 110, the boot block BIOS, is clearly on the blade in a separate non-volatile memory) and using the first configuration information stored in the second persistent memory to enable a hardware/software capability of the replaceable electronic module (Paragraph 14, "...boot block BIOS may facilitate the basic non-

processor hardware 120 initialization..." which would require running initialization routines in software and).

13. Per claims 4-8, Goud discloses claim 1, wherein the exact same procedure will be followed as stated claims 1, if the same blade was removed, i.e., for cleaning or upgrading a part on the blade and the replaced back in upon completion, since the configuration information, particularly the blade identification will be exactly the same.

14. Per claim 9, Goud discloses a method of automatically maintaining configuration information of a replaceable electronic module (Fig. 1, element 150 and paragraphs 18-21, Goud discloses the blade management agent storing information of what BIOS each blade should be running. Note this is all "automatic" in the sense that a system administrator initially associates/defines which main BIOS belongs to each blade, but afterwards the blade management agent automatically runs the appropriate BIOS each time the system is booted), comprising: receiving an indication that the replaceable electronic module has been installed (Fig. 2, steps 205-220, Paragraphs 22-24, each blade has its own pre-boot BIOS which when the blade is initially installed or every time the system is powered-up, the pre-boot BIOS causes the signal/indication to be sent to the blade management agent, "...an attempt may be made to communicate with a blade management agent. This communication may facilitate the accessing of the main BIOS portion..."); automatically detecting if the replaceable electronic module is a replacement replaceable electronic module that replaces a previously installed replaceable electronic module (here, the same replacement module that was taken out for a cleaning, upgrade, or whatever scenario to requires it's temporary removal and

reinsertion, the same procedure would inherently run off the boot load BIOS and main BIOS); and if the replaceable electronic module is a replacement replaceable electronic module, sending previously stored first configuration information to the replacement replaceable electronic module (first configuration information from the blade boot load BIOS and main BIOS external to the blade will load again upon reinsertion). Note paragraphs 6-7 lend support to the inherency argument where it is clear that blades are installed and removed. It is well-known to one of ordinary skill in the art that blades are removed for hardware upgrades and reinstalled, upon which the BIOS needs to be upgraded.

15. Per claims 10-13, these claims are substantially similar to the rejections made to claims 1-8, and thus, the rejections claims 1-8 are reapplied accordingly.

16. Per claims 14-16, Goud discloses multiple versions of boot block BIOS (second information) which can exist for a blade (paragraph 15). It is required to select the version at boot-up as well as a safety feature where under the circumstance that the new updated BIOS version does not boot properly, the previous/older version will then be booted. This inherently requires the blade to analyze/compare via logic and processing within the blade. Here, when a hardware part of the blade was upgraded and the blade is reinserted into the chassis, the system in Fig. 1 would check/compare the newest BIOS that accommodates for the change in hardware with an old version, the different versions of BIOS stored in different locations.

17. Per claims 17 and 18, Goud discloses a method of upgrading a replaceable electronic module (Paragraphs 7 and 15, updating BIOS; Fig. 2), comprising: storing

configuration information in a persistent memory (NVRAM shown in Fig. 1, elements 110 and 169) on the replaceable electronic module, wherein the configuration information enables a previously unenabled capability of the replaceable electronic module (Goud expressly states in paragraph 17, the preboot BIOS and boot block BIOS and main BIOS provide functionality greater than or radically different that what was originally intended, e.g., utilizing/permitting parts of the hardware not originally in the boot BIOS); and storing the configuration information in a persistent memory located off the replaceable electronic module (main BIOS stored externally, Fig. 1, element 165).

18. Per claim 19, Goud discloses a method of dynamically maintaining configuration information of a replaceable electronic module (blade management agent 150 and main BIOS 165 can dynamically add new BIOS versions based on what blades are added, paragraph 15), comprising: detecting when the replaceable electronic module is assigned a function (Fig. 2, element 220, function is whether there is more BIOS information to be loaded via the blade management agent), sending previously stored configuration information to the replaceable electronic module (main BIOS is loaded into the OS of blade, Fig. 2, elements 250-290), wherein the previously stored configuration information corresponds to the assigned function (the function of finding the main BIOS by the Blade Management Agent directly corresponds to the loading of main BIOS to the OS); and storing the configuration information on the replaceable electronic module (paragraph 26, "...blade processor may load the main BIOS portion into a local memory device..."), wherein the configuration information enables the replaceable electronic module to utilize a hardware capability of the replaceable electronic module to be

executed by the replaceable electronic module (Goud expressly states in paragraph 17, the preboot BIOS and boot block BIOS and main BIOS provide functionality greater than or radically different that what was originally intended, e.g., utilizing/permitting parts of the hardware not originally in the boot BIOS).

19. Per claims 20-21, Goud discloses claim 19, wherein the assigned function is a logical connection to a disk drive (blade management agent, element 150 looks for main BIOS for blade, the main BIOS is stored on a non-removable disk, e.g., a disk drive, Paragraph 19), the main BIOS image being run and executed by OS on the blade (Fig. 2, elements 250-290).

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Patents and patent related publications are cited in the Notice of References Cited (Form PTO-892) attached to this action to further show the state of the art with respect to upgrading firmware in blades.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan S. Chen whose telephone number is 571-272-4143. The examiner can normally be reached on M-F 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim N. Huynh can be reached on 571-272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ASC
02/16/2006

KIM HUYNH
SUPERVISORY PATENT EXAMINER
2/19/06